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ORIGINAL ARTICLE

The lower prevalence of female genital mutilation in the Netherlands: a nationwide study in Dutch midwifery practices

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Abstract
Objectives To determine the prevalence of female genital mutilation (FGM) in women giving birth in 2008 in the Netherlands.
Method A retrospective questionnaire study was conducted. The study covered all 513 midwifery practices in the Netherlands. The data were analysed with SPSS 17.0.
Results The response from midwifery practices was 93% ($n = 478$). They retrospectively reported 470 circumcised women in 2008 (0.32%). The expected prevalence in the Netherlands based on the estimated prevalence of FGM in the country of birth was 0.7%. It is likely that there was underreporting in midwifery practices since midwives do not always enquire about the subject and may not notice the milder types of FGM. Midwives who checked their records before answering our questionnaire reported a prevalence of 0.8%.
Conclusion On the basis of this study, we can conclude that FGM is a serious clinical problem in Europe for migrant women from risk countries for FGM. These women should receive extra attention from obstetricians and midwives during childbirth, since almost half are mutilated and FGM involves a risk of complications during delivery for both women and children.

Keywords Female genital mutilation · Prevalence · Midwifery practices · Country of birth · Migrants · Delivery

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Introduction

Demographic Health Surveys (DHS), implemented by Macro International for USAID and Multiple Cluster Indicator Surveys (MICS), implemented by national governments with technical assistance from UNICEF or other UN agencies are now carried out in many developing countries. They provide reliable data on the prevalence of FGM (WHO 2008). The original term used was 'female circumcision'. It was subsequently abandoned because of the confusing reference to male circumcision. The term 'female genital mutilation' (FGM) was introduced to emphasize the gravity and harm of the act and, more recently, the UN agencies introduced the term 'female genital cutting' as a less judgmental term for practicing communities (WHO 2008). This article uses the expression FGM for all of the above terms. On the basis of DHS and

MICS studies, WHO estimates that between 100 and 140 million girls and women worldwide have been subjected to FGM. An estimated 3 million girls are at risk of FGM every year (Yoder et al. 2004).

In 1997, the WHO/UNICEF/UNFPA Joint Statement listed four types of FGMs. Experience in the last decade has identified some ambiguities in this classification. Modifications were therefore introduced in 2008 to accommodate concerns and shortcomings while maintaining a four-category classification (Table 1).

The influx into Europe of refugees and asylum seekers from countries where FGM is practised means that governments and health care systems need to address the phenomenon of FGM, as do health care providers. Following a period of doubt about which stand to take, the medical professions throughout Western Europe have uniformly condemned the practice of FGM. In many countries, FGM is punishable under general criminal law. Ten European countries (Austria, Belgium, Cyprus, Denmark, Italy, Norway, Portugal, Spain, Sweden and the UK) have now introduced specific criminal provisions prohibiting the procedure (Powell et al. 2004; Leye 2008; Leye and Sabbe 2009). The large majority of European countries have included the principle of extraterritoriality in the criminal provisions, making it possible to prosecute for FGM even when it is perpetrated in African, Asian or Middle Eastern countries (Leye and Sabbe 2009).

FGM prevalence in Europe

Until now, it has been assumed that the prevalence of FGM in European immigrants is roughly the same as in the countries of origin. This assumption is not based on solid evidence since FGM prevalence in Europe has not often been investigated in culturally sensitive studies involving the target group itself. Leye (2008) summarises what she calls 'anecdotal' evidence about the prevalence of FGM in some European countries. Estimates for Belgium, Spain, Sweden and the UK are based on census data and the extrapolation of prevalence data in the countries of origin (Powell et al. 2004; Leye 2008). In the UK the overall approach was to identify countries where FGM is practiced and from where there is significant migration to England and Wales, to identify published data about the prevalence of FGM in those countries and apply them to census and birth registration data for England and Wales obtained from the Office for National Statistics (Dorkenoo et al. 2007). Andro and Les Clingand (2007) made a low, middle and high estimation for FGM in France based on the prevalence in the country of origin and the age upon arrival in France. Dubourg et al. (2011) applied data about prevalence of FGM from the most recently published DHS and MICS to females living in Belgium who migrated from countries where excision or infibulation are being practised, and to their daughters.

The prevalence of FGM in young girls in Europe is also mainly based on assumptions. Investigation is rendered even more difficult because of the clandestine atmosphere surrounding the practice. Since FGM is considered a criminal act in the Netherlands, reporting of the FGM status of their daughters by mothers is difficult. As a result in the Netherlands, FGM in young girls can only reliably be verified by medical inspection and the ethical justification for the examination has been questioned.

In 2005, the prevalence of FGM in young girls in the Netherlands was estimated using questionnaires completed by doctors and teachers. The result was a rough estimate of 50 girls undergoing FGM annually (Bijlsma-Schlosser and van Eerdenburg-Keuning 2005). In Sweden, a group of researchers from risk countries investigated the prevalence of FGM in women of reproductive age. Being from the same background they were able to survey women from risk countries since they were trusted and they were able to conduct examinations of genitalia in a smaller group. Prevalence was 68% in the survey group ($n = 254$) and 62% in the examination group ($n = 39$) (Kangoum et al. 2004).

To design effective prevention programmes, it is also important to understand the risk of FGM for young girls living in Europe. Several European countries recently calculate the number of girls at risk for FGM, most recently in Belgium (Dubourg et al. 2011). In this calculation, the range in the age of risk is wider than the range generally used in the country of origin. This is because it is known that arranging FGM from Europe is often more difficult, involving a long search for someone in the country of residence who carries out FGM clandestinely or a trip to the country of origin.

Table 1 WHO (2008) classification of types of female genital mutilation

Type I: Partial or total removal of the clitoris and/or the prepuce (clitoridectomy)
Type II: Partial or total removal of the clitoris and the labia minora, with or without excision of the labia majora (excision)
Type III: Narrowing of the vaginal orifice with creation of a covering seal by cutting and appositioning the labia minora and/or the labia majora, with or without excision of the clitoris (infibulations)
Type IV: All other harmful procedures to the female genitalia for non-medical purposes, for example: pricking, piercing, incising, scraping and cauterization

Health consequences

FGM has consequences for the health of women and girls (Obermeyer 2005; Elgaali et al. 2005; Tamaddon et al. 2006) and so it has introduced a new health problem to Europe. In addition to the general health problems caused by FGM, like urinary track infections and recurrent local infections, FGM has obstetrical consequences, especially in cases of infibulation (Vangen et al. 2002; Eke and Nkanginieme 2006; Small et al. 2008; Carolan 2010; Boama and Arulkumaran 2009). Small et al. compared pregnancy outcomes for Somali-born women with those of women born in receiving countries. They found that Somali-born women were less likely to give birth preterm or to have infants with low birth weight, but there was an excess of caesarean sections, particularly in first births, and an excess of stillbirths (Small et al. 2008). Establishing the magnitude of the problem will challenge doctors, midwives and obstetricians to take preparations to support these women. Several studies in Western countries have concluded that changes in clinical practice are needed to incorporate mutilated women's perceptions and needs, and to enhance sensitivity to cross-cultural practices (Chalmers and Hashi 2000; Vangen et al. 2002). Midwives and obstetricians need proper training to make them competent to manage women with FGM and they need an increased understanding of cultural backgrounds in order to provide quality care for these women (Jäger et al. 2002; Vangen et al. 2004; Thierfelder et al. 2005; Zaidi et al. 2007; Lundberg and Gerezgiher 2008; Leye et al. 2008).

It is important to elaborate an integrated European agenda addressing research, training for professionals, and community education (Powell et al. 2004).

The present study was the first to systematically study the prevalence of observed FGM in women during pregnancy and childbirth at the national level in a European country. This approach was adopted because it is only during pregnancy and childbirth that women can be asked functional questions about FGM and can be examined without ethical restrictions.

Method

In this study, it was decided that investigating the prevalence of FGM by conducting a survey of the women would not be feasible; it was expected that women from risk countries living in the Netherlands would underreport FGM due to the social taboo and the threat of legal proceedings. Furthermore, we expected a low response rate because of cultural and linguistic communication problems. Examining genitalia is the most accurate way of obtaining information about the prevalence of FGM. Pregnancy and childbirth provide a natural opportunity for this examination. Since 85% of pregnant women in the Netherlands are cared for by midwives at some juncture during their antenatal, intrapartum and/or postpartum period, it was decided to conduct a survey of all midwifery practices in the Netherlands ($n = 513$) (Stichting Perinatale Registratie Nederland 2008). In addition, a retrospective design was adopted to surmount the time constraints as the Dutch Government needed information about FGM prevalence as soon as possible since they had promised the Dutch Parliament to provide this information. The limitation of retrospective reporting based on memory was considered an acceptable risk because the period between the year midwives observed the FGM (2008) and the questionnaire (February 2009) was limited.

In February 2009, all midwifery practices in the Netherlands received a letter explaining the background and reasons for this study and a very short questionnaire with five questions about prevalence, the type of FGM and questions to check the validity of their assessment. It was expected that, because of the heavy workload of midwives, a long questionnaire would negatively influence the response rate.

It was not possible to ask about the women's country of birth because this information is not routinely registered in the national midwifery care registration system (LVR). To calculate the prevalence of FGM, the midwives were asked to report the total number of pregnant women coming under their control in 2008. For the purpose of this retrospective study, the midwives were asked to distinguish between two types of FGM: infibulation (type III) and any other forms (types I, II and IV). In general, Dutch midwives have relatively little experience with FGM, and so it was not to be expected that they would be able to recognise type IV or differentiate between types I and II, especially if they were relying on memory.

Reminders were sent to non-responders after 4 weeks. Non-responders residing in areas with a low response were contacted by telephone. The data were analysed with SPSS 17.0. The Chi-square test was used to compare proportions, and analysis of variance (ANOVA) to compare means between groups. p values <0.05 were considered significant.

Results

The overall response rate from the 513 midwifery practices was 93% ($n = 478$). Eventually, the analysis was based on 470 practices (92%) because eight questionnaire were not fully completed. All regions in the Netherlands were equally represented, including urban and rural areas. The midwifery practices reported seeing 145,492 pregnant women during the study period. Due to the very high response rate, this was 79% of the total number of women

(184,660) who gave birth in the Netherlands in 2008 (data from Statistics Netherlands). Since 15% of pregnant women in the Netherlands are cared for by obstetricians, midwifery practices that did not reply represent 6% of the deliveries in 2008. Almost 40% of the midwifery practices reported seeing one or more mutilated women in 2008. A total of 470 cases of FGM were reported: a prevalence rate in all women delivered in the Netherlands in 2008 of 0.32% (95% CI 0.31–0.34%). In other words, 3 in 1,000 of the women in this study population were reported as having undergone FGM.

The midwifery practices reported seeing 188 (40%) infibulations (type III FGM) and 237 (50%) other types of FGM. They did not remember or did not know which FGM type to report in 36 cases (8%) and 9 responders (2%) failed to return this information.

During this study, we made a theoretical estimate of the expected prevalence of FGM in the Netherlands using national birth registration data for 2008. These records include the country of origin, while the National Midwifery Care Registry (LVR) does not. A rough calculation was made of the number of women from the 15 highest-risk countries (defined as prevalence of more than 40%), and the actual prevalence of FGM in the country of origin. The results of this exercise can be found in Table 2.

Using this method and assuming that FGM prevalence in women giving birth in the Netherlands is comparable to FGM prevalence in the countries of origin, FGM could be expected in 1,341 women who gave birth in 2008. This corresponds to a prevalence of 89% in women from risk countries. Actual prevalence was calculated using data from the national birth records and the results of the survey of midwifery practices. According to these national birth registration data, 1504 women from countries with a high prevalence of FGM gave birth in 2008. Since midwives reported on 79% ($n = 145{,}492$) of the pregnant population in the Netherlands, it is assumed that they saw 1,188 (=79%) of the 1,504 women from risk countries who gave birth in 2008. In the study, midwives reported 470 and not the expected 1,188 cases of FGM, resulting in an estimated prevalence rate of 40% in women from high prevalence countries of origin who reside in the Netherlands. This is far lower than the calculated expected prevalence of 89%.

The expected overall prevalence in the Netherlands based on prevalence in the country of origin was 1,341 out of 184,660 (total number of births). This is a prevalence rate of 0.7%, which is more than twice the 0.32% reported by the midwives.

Of the 183 midwifery practices who reported cases of FGM, 70% had seen one or two women with FGM and 6% had seen more than 8 women with FGM during the study period. The distribution of FGM in the midwifery practices can be found in Table 3.

The midwifery practices with the highest number of reported FGM cases were mainly located in the larger cities or close to refugee and centres for asylum seekers (ASC). The prevalence of FGM was highest in the two largest cities in the Netherlands: 4.6 per 1,000 women in Amsterdam and 5.5 per 1,000 women in Rotterdam.

Table 2 Expected number of female genital mutilation in live births by country of origin of the mother in the Netherlands in 2008 (provisional figures)

Countries of origin of women at risk of FGM (prevalence >40%)	Number of women from risk countries who gave birth in the Netherlands in 2008[a]	% FGM in country of origin[b]	Expected number of pregnant women with FGM in the Netherlands based on prevalence in country of origin
Burkina Faso	4	72.5	3
Ivory Coast	41	41.7	17
Djibouti	3	93.1	3
Egypt	269	95.8	258
Eritrea	35	88.7	31
Ethiopia	177	74.3	132
Gambia	9	78.3	7
Guinea-Bissau	4	44.5	2
Liberia	58	45	26
Mali	0	91.6	0
Mauretania	4	71.3	3
Sierra Leone	131	94	123
Somalia	592	97.9	578
Sudan	173	90	156
Chad	4	44.9	2
Total	1,504	89.2	1,341

[a] Source: data from Statistics Netherlands

[b] Source: WHO (2008)

Table 3 Number of female genital mutilation cases by number of midwifery practices in the Netherlands in 2008

Number of FGM cases reported	Number of midwifery practices	% of midwifery practices
1	82	45
2	45	25
3	18	10
4	8	4
5	16	9
6	1	0
7	2	1
8	4	2
10	5	3
15	2	1

Of the 183 midwifery practices who reported FGM for 2008, 124 (68%) answered that they were certain about the number of cases they reported. A significant difference ($p < 0.0001$) was found in FGM prevalence between the midwifery practices that were not certain about the number of cases of FGM reported and those who were certain: 226 (48%) uncertain cases in 25,261 women (0.9%) compared to 244 (52%) certain cases in 42,637 (0.6%). It appears that uncertainty about the number of women with FGM is associated with an increase in the number of cases reported, and this could indicate that the number is overestimated.

In the group practices who reported that they were certain about the validity of their reporting, some checked their records and others did not. A comparison of these two groups showed up a significant difference ($p = 0.001$) in the prevalence of FGM: in the group who checked records, 132 cases were reported in 16,270 women (0.8%), as compared to 111 cases in 26,017 women (0.4%) in the group that did not check their records. This indicates that memory was indeed a serious problem. However, an important reason for the lower prevalence in the group that did not check the records is that practices with only one case of FGM easily remembered the number, were certain about the number (90% were certain) and had no reason to check their records.

Discussion

Accurate data on the prevalence of FGM in Europe are indispensable for monitoring and evaluating programmes and activities. In general, it has been assumed that the prevalence of FGM in immigrant women in Europe is comparable to prevalence in their countries of origin. However, several critical limitations of these prevalence studies were also mentioned (Leye et al. 2006).

The study shows a lower prevalence of FGM in women seen by midwifery practices in the Netherlands in 2008 compared to the prevalence data from women of reproductive age in the countries of origin. The overall prevalence in the Netherlands based on the prevalence in the country of origin would be 0.7% and the prevalence found in the Netherlands was 0.32%.

Lower prevalence is likely when the immigrants are not a typical selection of the population in the country of origin. The prevalence in the country of origin as presented in Table 2 does not take into consideration that FGM is related to ethnic affiliation and not country of birth (De Bruyn 2003). This might influence the prevalence in a specific migrant population. For example, if all migrants from Sudan in the Netherlands belong to the Christian subgroup that does not practise FGM, the prevalence in the Netherlands will be relatively low.

The migrant women may have a higher educational level and/or socio-economic status and immigrant women who grew up in their home country and those who grew up in Europe would have different risks of having undergone FGM. More in-depth research is required in this area. Recent studies in Egypt confirm that there is less FGM among daughters of highly educated and empowered women in large cities. These women were 8 times more likely not to plan FGM for their daughters than women with lower educational levels and less empowerment (El-Gibaly et al. 2002; Tag-Eldin et al. 2008; Afifi 2009). The latest Demographic and Health Survey of Egypt and a study in Upper Egypt indicate that FGM remains highly prevalent in rural areas despite the law (El-Zanaty and Way 2009; Hassanin et al. 2008). If it turns out to be the case that Egyptian immigrants in the Netherlands are predominantly from urban areas, the prevalence of FGM could be lower. A qualitative study in Sweden of Ethiopian and Eritrean men and women found that they firmly rejected all forms of FGM and it was concluded that children from these countries run little risk of FGM in Sweden (Johnsdotter et al. 2009). Again in Sweden, a questionnaire answered by 2,702 health care providers yielded answers supporting the hypothesis that this practice is not as widespread among African immigrants in Sweden as in their countries of origin. Although many migrant women in Sweden express negative attitudes towards FGM, at the same time there are attitudes in support of the practice (Litorp et al. 2008). The study of Ahlberg et al. (2004) *making sense of eradication interventions and the persistence of female circumcision within the Swedish context* was discussed by Johnsdotter and Essén (2005) who see reasons to focus on processes of abandonment of the practice instead of persistence. Morison et al. (2004) concludes in a study among young Somalis in London that *Those who were living in Britain before they had reached the usual age for circumcision were less likely to be circumcised (42%) than those who arrived after they had reached that age (91%)*. A recent study in the Netherlands of 66 women, mainly from the Horn of Africa, confirms that FGM is waning. Parents stated that they did not want FGM for their daughters (Vloeberghs et al. 2010).

Underreporting will also have contributed to the fact that we did not find a prevalence of 0.7%. The main reason for underreporting FGM is that the midwives did not recognise all the forms of FGM, especially the milder forms, due to lack of experience with the phenomenon and a lack of training on the subject. Another possible reason for underreporting FGM is that some of the reported information came from memory. When midwives checked their records they found a prevalence of 0.8%, which is similar to the expected prevalence of 0.7%. In the group that did not check their records, we found a prevalence of only

0.4%, probably because practices with only one or two cases easily remembered the occurrence and had no need to check. More than half of the practices were certain about the number and those practices had a prevalence of 0.6%, which we consider to be close to actual prevalence.

Still another reason for the underreporting of FGM in the study population is that midwives sometimes referred women with FGM to an obstetrician without asking them about FGM or conducting vaginal inspections. The referral rate from midwives to obstetricians during pregnancy is 30% (Stichting Perinatale Registratie Nederland 2008). Midwives in the Netherlands do not routinely inspect women's vulvas prior to delivery, although guidelines do require them to do so.

A study carried out by midwifery students in the Netherlands in 2005–2006 also arrived at a prevalence rate of 0.3%. The same study showed that 36% of midwifery practices did not ask their clients about FGM and that, in the cases where the women were asked and had stated that they had been mutilated, only 60% of the midwives subsequently inspected the vulva during antenatal care. Midwives notice FGM at the moment of the delivery. Since the completion of this study, the Royal Dutch Midwifery Organisation has published a statement recommending that midwives should inquire about FGM early in the pregnancy.

To obtain a complete picture of the prevalence of FGM in the Netherlands, data should be recorded in the national registration system where gynaecologists also record their data. However, FGM will only be recorded in a newly developed dataset that has yet to be put into practice.

The study also shows that, of all the reported cases of FGM, 40% were classified as infibulations and 50% as other types of FGM. This corresponds to the 44% for infibulation found in a Swedish study (Kangoum et al. 2004). In Melbourne, 78% of the women identified as having had FGM were found to have undergone infibulation (Knight et al. 1999). In the Netherlands, Vloeberghs et al. (2010) recently found a rate of 53% for self-reported infibulation. These rates do not correspond to the global percentage stated by the World Health Organisation of 15% (WHO, 2008). In another Scandinavian study, 17% were infibulated and 83% had other types of FGM (Elgaali et al. 2005). In Melbourne, the fluctuations could be explained by the differences in the FGM culture in the countries of origin. This also applies to our research population. According to the National Registry the group of immigrant women from countries where infibulation is more commonly practiced, such as Sudan and Somalia, represents 50% of the women from risk countries delivered in the Netherlands. It is also possible that general underreporting of FGM means that the underreported group includes a higher proportion of FGM types I, II and IV because these types are difficult to recognise.

Midwives seem to miss the milder forms of FGM and do not know how to manage delivery in mutilated women was concluded in the study of the midwifery students in 2005–2006. Broad schooling about the medical, social and cultural components of FGM is therefore needed. Scar tissue from infibulation and from milder forms can lead to serious complications during delivery. The techniques of episiotomy and suturing for women with FGM should be known to midwives and obstetricians.

Conclusion

Midwives proved to be a valuable source of data about the prevalence of FGM in the Netherlands. The extremely high response rate gives an indication of the commitment of midwives in the Netherlands to addressing the problem of FGM.

The prevalence rate of 0.32% in women receiving midwifery care in the Netherlands appears to be lower than the expected prevalence of 0.7% based on prevalence data in their countries of origin. However, midwifery practices that checked their records found a prevalence of 0.8%, which was even higher than the expected 0.7% based on the prevalence in the home countries. We assume underreporting due to the difficulties in recognising FGM, not asking women from risk countries about FGM and not always checking women's vulvas before referral to gynaecologists. The retrospective character of the study may also have contributed to underreporting. Notwithstanding the underreporting we conclude that the prevalence of FGM in the Netherlands is slightly lower than in the countries of origin because 52% of the midwives that were sure about the reported numbers found a prevalence of 0.6%.

The study shows that FGM is a health problem in Europe and that it needs to be addressed as a serious clinical problem. Assuming that 0.3–0.7% of all pregnant women are mutilated, the magnitude of the problem is comparable with that of extra-uterine pregnancy (which has a prevalence of 1%) and more common than a rupture of the uterus (5.9 per 100,000 births).

Recommendations

FGM is relatively common, at least compared to other issues resulting in maternal morbidity. It is important, therefore, to ensure that midwives and obstetricians are knowledgeable and skilled in recognising the various types of FGM and that they are capable of approaching the subject in an appropriate and sensitive manner. To provide culturally sensitive and migrant friendly maternity care, an extensive training effort is needed for medical students and

trained health workers. In addition, because circumcised women are likely to circumcise their daughters too, it is important for reproductive health personnel to learn to raise FGM as an issue in order to prevent FGM in the girls they have delivered.

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